

2009 Environmental Excellence Award Winners Earn the Title “The Best in Texas”



For 16 years, TCEQ's Texas Environmental Excellence Awards have honored the state's most outstanding waste-reduction and pollution prevention projects. Ten different categories, including a newly created Water Conservation category, spotlight the environmental achievements of Texas citizens, communities, and organizations.

Winners of the 2009 Texas Environmental Excellence Awards—recommended by the Governor's Blue Ribbon Committee and approved by TCEQ Commissioners and Governor Perry—were honored at a banquet during the Environmental Trade Fair and Conference held at the Austin Convention Center on May 13.

The winners are highlighted below. For their complete stories and to see online profiles that spotlight these projects, visit www.teea.org.



Innovative Technology Energy Transfer Technologies

Energy Transfer Technologies developed new electric compression

technology that drastically reduces air emissions while reducing operating costs. Energy Transfer's ESelect Dual Drive allows companies the ability to switch between electricity and gas when the electrical grid loses power, which is sometimes the case in rural areas. For each 1,500 horsepower Dual Drive compressor installed, there can be an annual reduction of 70 tons in nitrogen oxide emissions. Energy Transfer also has a unique working relationship with electrical companies. When electrical companies need additional energy during peak demands they ask Energy Transfer to switch the compressors to run on gas, helping minimize the potential of reaching peak electrical load. Another benefit of the dual-drive compressor is that it reduces noise emissions and the amount of coolant and oil waste created by the gas engine.



Large Business/Technical

Mars Snackfood US LLC

Thanks to an innovative production process, Mars found a way to save money by lowering fuel costs and resources by

replacing a portion of their natural gas use with what's known as landfill gas. Two years ago, Mars decided to invest in new boiler controls and instrumentation that would enable it to burn the by-product. With the completion of a 5-mile long pipeline from the city-owned landfill to the plant, the landfill gas supplies nearly 50 percent of the plant's boiler fuel needs—cutting natural gas costs by more than \$600,000 last year alone. Mars estimates the annual reduction in natural gas usage to be more than 180,000 MMBTU.



Large Business/Nontechnical

Kimberly-Clark Corporation

Kimberly-Clark (K-C) has improved energy efficiency by more than 30 percent through

operating an air management system, optimizing vacuum systems, improving efficiency of compressed air, upgrading its lighting, and installing variable-frequency drive motors.

K-C recycles 99 percent of its manufacturing waste (more than 23,000 tons per year). Recycled items include off-spec diapers, training pants, cardboard, metal (including soda cans), pallets, drums, trim, stretch wrap, and poly dust. Over the last 7 years, process water has been treated and used in the irrigation of the facility's vast landscape or recycled back into the process-water stream, conserving roughly 24 million gallons.



Government

Texas Department of Transportation (TxDOT)

TxDOT has created more than a half-dozen programs to address environmental needs ranging from the protec-

tion of bat habitat and the use of old tires as roadway material to the improvement of wetland territories. Leading by example, more than 4,400 TxDOT employees have signed up for the agency's internal air quality program that enables them to track their own actions to reduce environmental impact and monitor their impact on air quality. TxDOT's vehicle fleet also has more than 3,300 vehicles that use either compressed natural gas or propane. Over the past three years, TxDOT has reused more than 11 million tons of roadway materials, saving landfill space and reducing emissions generated by producing and transporting new materials. To further cut emissions in areas that do not meet federal Clean Air Quality Standards, the agency replaced fossil-fuel-powered engines with solar power on 250 roadway signs. TxDOT also uses compost to assist with vegetation growth and reduce erosion along roadsides.



Civic/Nonprofit **Build San Antonio Green**

A collaboration between the local government, utilities, and the Greater San Antonio Builders Association, Build San Antonio Green

uses a quality-review process to certify that homes are "built green." Participating builders receive ongoing training in green-building techniques and are required to attend continuing education classes. In just two years, Build San Antonio Green has certified almost 247 new homes, boasting energy savings of 1.51 gigawatt-hours a year, which reduces nitrogen oxides by 2,492 pounds—the equivalent of taking 125 light-duty vehicles off the road for a year. Build San Antonio Green's next step is to launch a renovation/remodeling program that will help expand the program beyond new construction.



Education **The Institute of Environmental and Human Health, Texas Tech University**

An external review board recently ranked The Institute of

Environmental and Human Health (TIEHH) as one of the country's top environmental toxicology graduate programs. The Institute's state-of-the-art laboratories are housed in six buildings covering more than 150,000 square feet. Researchers have partnered with almost 20 federal agencies and some of America's leading manufacturers.

Two TIEHH studies that have dramatically affected the Texas environment are the Brazos River Study and the Caddo Lake Study. TIEHH's work aided in evaluating the cleanup of the Naval Weapons Industrial Reserve Plant and the transfer of Department of Defense property to the United States Fish and Wildlife Services, and resulted in forming the Caddo Lake National Wildlife Refuge.

One groundbreaking project focused on developing protective gear used in guarding professionals from hazardous materials during counterterrorism efforts. Specifically, scien-

tists are experimenting with ways to use locally grown cotton and particulate cleaners like activated carbon to create lighter and more breathable fabrics. In addition, this technology can also be used for chemical-cleanup wipes, bullet-proof vests, and filters for breathing apparatus and gas masks.



Agriculture **Texas AgriLife Extension Service**

As part of an AgriLife Extension Service program, educators taught Rio Grande Valley growers to effec-

tively use and restrain the use of fertilizer, improving water quality and saving farmers \$2 million in fertilizer costs. The program targeted producers in four counties, and taught area growers how to perform soil tests that help determine the right amount of nutrients necessary and achieve more consistent crop yields and crop quality—improving water quality in the process.

The project's annual soil testing campaign has generated more than 3,000 samples representing 120,000 acres. To date, the program has reduced the use of nitrogen by more than 2 million pounds and cut phosphorus use by 3 million pounds, and growers have reduced fertilizer costs anywhere from \$9.47 an acre to more than \$27 an acre.



Youth **Science Rocks U**

Science Rocks U, an inventive group of 15 teens, is teaching the public key lessons about water conservation.

Three years ago, in

Whiteface, a small town 45 miles west of Lubbock, Science Rocks U began raising awareness about the Ogallala Aquifer and the unique wetlands that replenish it. Science Rocks U calls this outreach project "SPLASH," which stands for "Studying Playa Lakes and Saving Habitat." The group developed an educational program that includes teaching tools ranging from brochures to a music video, and was invited to perform at the U.S. Fish & Wildlife Service's first Youth Forum for the Environment. Science Rocks U also has sponsored two Playa Lakes Festivals to draw attention to the aquifer.



Individual **Cliff Etheredge**

In 2003, Cliff Etheredge, a lifelong farmer, put himself through a crash course to learn everything he could about the wind

industry. He also began convincing more than 350 landowners representing nearly 100,000 acres to believe in his vision. One by one, he got their commitment. Therein lay the roots of the groundbreaking Roscoe Wind Project.

In 2005, Mr. Etheredge connected with a developer and worked on behalf of the landowners throughout the entire contract negotiations and leasing process. The Roscoe Wind Project began construction in 2007 and will be the largest wind farm in the world upon its completion later this year. The project will produce enough power to supply 265,000 households. The lease revenues benefit area landowners, as well as four different school districts, and will boost the local economy significantly. Located in one of the most financially depressed areas in the state, the Roscoe Wind Project's construction costs will run between \$800 million and \$1 billion.



Water Conservation Boerne Independent School District

The new Boerne High School was designed and built with an innovative water harvesting

network that combines two elevated storage tanks and heating, ventilating, and air conditioning condensate with an 800-foot long underground pipe that's five feet in diameter. Together, the system can hold more than 224,000 gallons of water, with the potential of saving the school district an estimated \$48,000 per year. Officials estimate that the project should pay for itself in less than five years.

Boerne High School also uses the collection system as part of its outdoor classroom curriculum for the science department, giving students valuable hands-on training in environmental stewardship. In the school district's own words, it views water not only as a natural resource, but also a cherished commodity.

The 2010 Texas Environmental Excellence Award application will be available online in August at <www.teea.org>. Apply early for the recognition of your environmental project as a Texas leader!

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